

Amendment to the claims:

Please cancel claims 1-87 without prejudice to their renewal in a subsequently filed application, and enter the following new claims.

This listing of claims will replace all prior versions, and listings, of claims in the application:

88. (new) A method of detecting and/or isolating a eukaryotic cell that produces a secreted protein of interest (POI), comprising:

(a) providing a cell comprising a nucleic acid that encodes a secreted POI and a nucleic acid that encodes a cell surface capture molecule capable of binding the POI, wherein the nucleic acid encoding the secreted POI or the nucleic acid encoding the cell surface capture molecule, or both, are transfected into the cell;

(b) culturing the cell under conditions in which the POI and cell surface capture molecule are expressed, and a POI-capture molecule complex is formed intracellularly and displayed on the cell surface;

(c) contacting the cell with a detection molecule, which binds to the POI displayed by the cell; and

(d) detecting and/or isolating the cell due to it being bound to the detection molecule.

89. (new) The method of claim 88, wherein the providing step comprising transfecting the nucleic acid encoding the secreted POI and the nucleic acid encoding the cell surface capture molecule into the cell.

90. (new) The method of claim 88, wherein the cell is detected in step (d) by flow cytometry.

91. (new) The method of claim 88, wherein the detection molecule is linked to a solid support or particle.

92. (new) The method of claim 88 performed on a population of cells, wherein the isolating step isolates the cells binding to the detection molecule from the population.

93. (new) The method claim 92, wherein the cells express different levels of the POI, and the isolating step isolates cells based on relative expression level of the POI.

94. (new) The method of claim 92, wherein the cells express different POIs.

95. (new) The method of claim 92, further comprising contacting the cells with a blocking molecule that

binds the cell surface capture molecule or the POI to block the diffusion of secreted POI between cells.

96. (new) The method of claim 89, wherein the nucleic acid encoding the secreted POI is transfected into the cell before the nucleic acid encoding the cell surface capture protein the step(a) is performed before step (b).

97. (new) The method of claim 89, wherein the nucleic acid encoding the cell surface capture protein is transfected into the cell before the nucleic acid encoding the secreted POI.

98. (new) The method of claim 89, wherein the nucleic acid encoding the cell surface capture protein and the nucleic acid encoding the secreted POI. are transfected into the cell simultaneously.

99. (new) The method of claim 88, wherein the protein of interest (POI) comprises an Fc domain.

100. (new) The method of claim 99, wherein the POI is an antibody, an Fab, a single chain antibody (ScFv) or fragment thereof, or a molecule fused to an antibody constant region.

101. (new) The method of claim 100, wherein the antibody is selected from the group consisting of IgM, IgG, IgA, IgD, and IgE, and their subtypes.

102. (new) The method of claim 99, wherein when POI is a ligand, the cell surface capture molecule is a receptor for the ligand; when POI is a receptor, the cell surface capture molecule is the ligand for that receptor; when the POI is a protein or peptide, the cell surface capture molecule is an antibody specific to the POI; or when POI is an antibody, the cell surface capture molecule is an antibody-binding protein.

103. (new) The method of claim 102, wherein the antibody binding protein is an Fc receptor, an anti-immunoglobulin antibody, an anti-immunoglobulin ScFv, Protein A, Protein G, or functional fragments thereof.

104. (new) The method of claim 102, wherein the secreted POI-cell surface capture molecule is selected from the group consisting of Tie1-Ang1, Tie2-Ang2, VEGFR1-VEGF and VEGFR2-VEGF.

105. (new) The method of claim 88, wherein the capture molecule is a protein capable of binding the

POI, and having a signal sequence and membrane anchor such that the protein remains anchored in a membrane of the cell, exposed to the outside of the cell, and functions as the cell surface capture molecule.

106. (new) The method of claim 105, wherein the membrane anchor is a transmembrane anchor or a GPI link.

107. (new) The method of claim 106, wherein the membrane anchor is native to the cell, recombinant, or synthetic.

108.(new) The method of claim 88, wherein the eukaryotic cell is a mammalian cell.

109. (new)The method of claim 108, wherein the mammalian cell is a CHO cell.

110. (new) The method of claim 108, wherein the mammalian cell is an antibody-producing cell fused to an immortalized cell.

111. (new) The method of claim 110, wherein the antibody-producing cell is a B-cell or derivative thereof.

112. (new) The method of claim 111, wherein the B-cell derivative is a plasma cell, a hybridoma, a myeloma, or a recombinant cell.

113. (new) A method of detecting and isolating a eukaryotic cell that produces a secreted protein of interest (POI), comprising:

- (a) transfecting the cell with a nucleic acid that encodes a cell surface capture molecule capable of binding the POI;

- (b) culturing the cell under conditions in which a POI-cell surface capture molecule complex is formed intracellularly and expressed on the cell surface;

- (c) contacting the cell with a detection molecule capable of binding the POI, wherein the surface-displayed POI is detected; and

- (d) isolating the detected cell.

114. (new) The method of claim 113, wherein when the POI is a ligand, the cell surface capture

molecule is a receptor for the ligand; when the POI is a soluble receptor, the cell surface capture molecule is the ligand for that receptor; when the POI is a growth factor, the cell surface capture molecule is a protein capable of binding the growth factor; or when POI is an antibody, the cell surface capture molecule is an antibody-binding protein.

115. (new) The method of claim 114, wherein the antibody is selected from the group consisting of IgM, IgG, IgA, IgD or IgE, as well as their subtypes.

116. (new) The method of claim 114, wherein the antibody binding protein is an Fc receptor, an anti-immunoglobulin antibody, an anti-immunoglobulin ScFv, Protein A, Protein G, or functional fragments thereof.

117. (new) The method of claim 113, wherein the eukaryotic cell is a mammalian cell.

118. (new) The method of claim 117, wherein the mammalian cell is a CHO cell.

119. (new) The method of claim 117, wherein the mammalian cell is an antibody-producing cell fused to an immortalized cell.

120. (new) The method of claim 119, wherein the antibody-producing cell is a B-cell or derivative thereof.

121. (new) The method of claim 1120, wherein the B-cell derivative is a plasma cell, a hybridoma, a myeloma, or a recombinant cell.

122. (new) A method of detecting and isolating a eukaryotic cell that produces a secreted protein of interest (POI), comprising:

- (a) transfecting a cell with a nucleic acid molecule that encodes a secreted POI comprising an Fc domain;
- (b) transfecting the cell with a nucleic acid molecule that encodes a cell surface capture molecule capable of binding an Fc domain;
- (c) culturing the cell under conditions in which a POI-cell surface capture molecule complex is expressed on the cell surface;
- (d) contacting the cell with a detection molecule capable of binding the POI, wherein the

surface-displayed POI is detected;
(d) isolating the detected cell.

123. (new) The method of claim 122, wherein the eukaryotic cell is a mammalian cell.

124. (new) The method of claim 123, wherein the mammalian cell is a CHO cell.

125. (new) The method of claim 124, wherein the mammalian cell is an antibody-producing cell fused to an immortalized cell.

126. (new) The method of claim 125, wherein the antibody-producing cell is a B-cell or derivative thereof.

127. (new) The method of claim 126, wherein the B-cell derivative is a plasma cell, a hybridoma, a myeloma, or a recombinant cell.

128. (new) The method of claim 122, wherein the protein of interest is an antibody, an Fab, a single chain antibody (ScFv), or a fragment thereof.

129. (new) The method of claim 128, wherein the antibody is selected from the group consisting of IgM, IgG, IgA, IgD or IgE.

130. (new) The method of claim 129, wherein the cell surface capture molecule is an Fc receptor, Protein G, or functional fragment thereof capable of binding an Fc domain.

131. (new) The method of claim 122, wherein the detection molecule comprises two molecules that bind each other and are differentially labeled.

132. (new) The method of claim 122, further comprising following step (c), (c') contacting the cell with a blocking molecule capable of binding the cell surface capture molecule or POI.

133. (new) The method of claim 122, wherein the method is conducted in a high viscosity medium.

134. (new) The method of claim 122, wherein the POI-capture molecule complex forms intracellularly.

135. (new) A method of isolating an antibody, comprising

fusing antibody-producing cells with immortalized cells expressing a cell surface capture molecule to produce a plurality of fused cells, wherein the antibody-producing cells are B or plasma cells;

culturing the cells whereby antibody-capture molecule complexes are formed and displayed on the surface of the cells;

contacting the cells with a detection molecule that binds to an antibody of interest, whereby one or more cells bind to the detection molecule via the antibody of interest; and

isolating one or more cells that bound to the detection molecule.

136. (new) The method of claim 135, wherein the isolated one or more cells express antibodies with a desired specificity, isotype or avidity.

137. (new) The method of claim 135, wherein the capture molecule is selected from the group consisting of Fc receptors, anti-immunoglobulin antibodies, protein A, protein L, protein G and protein H, or functional fragments thereof.